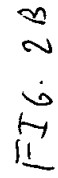
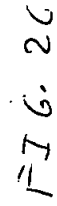


FIG. 1 (prior art)

017326

2010087408-030102



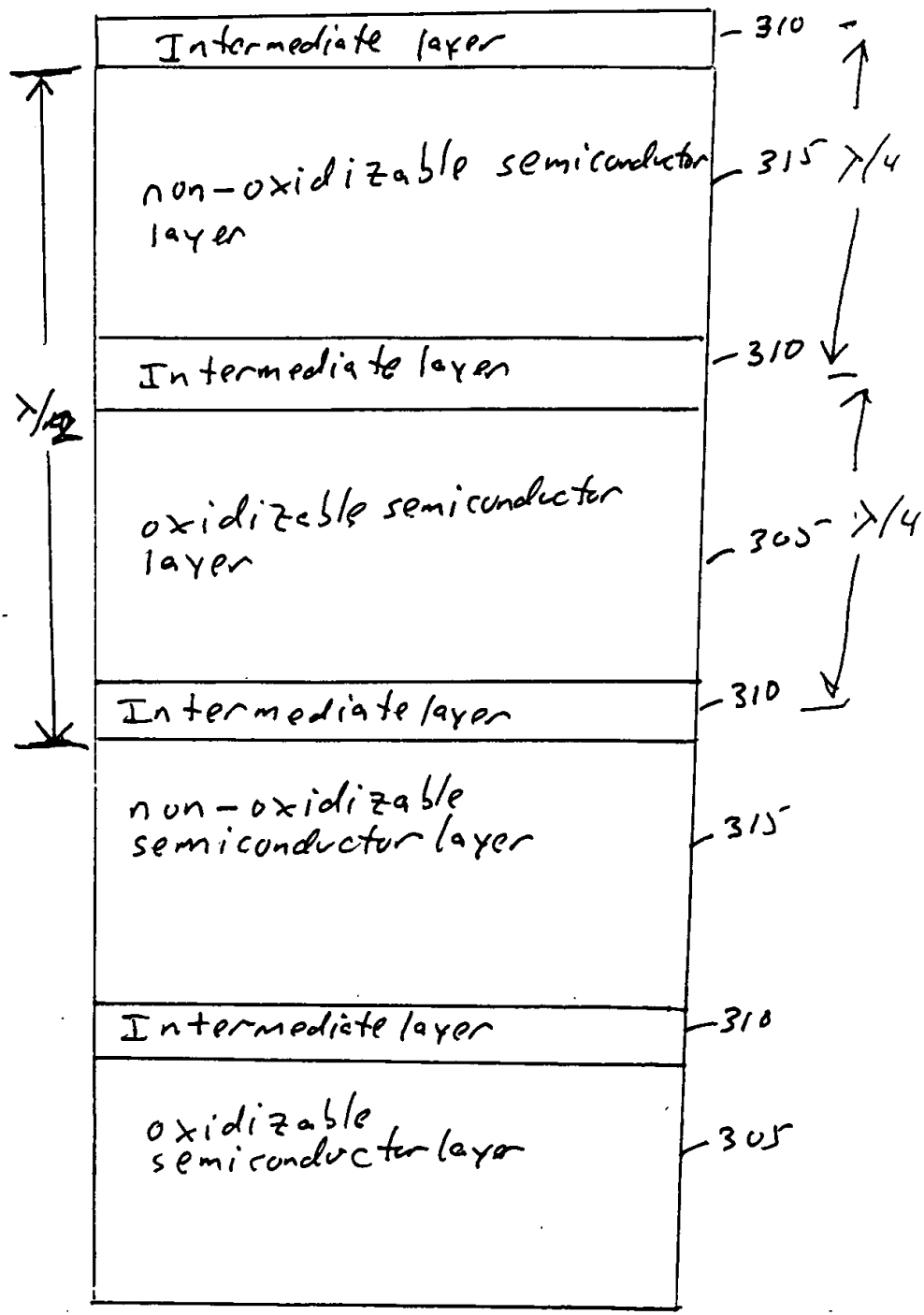


FIG. 3

20100803042800T

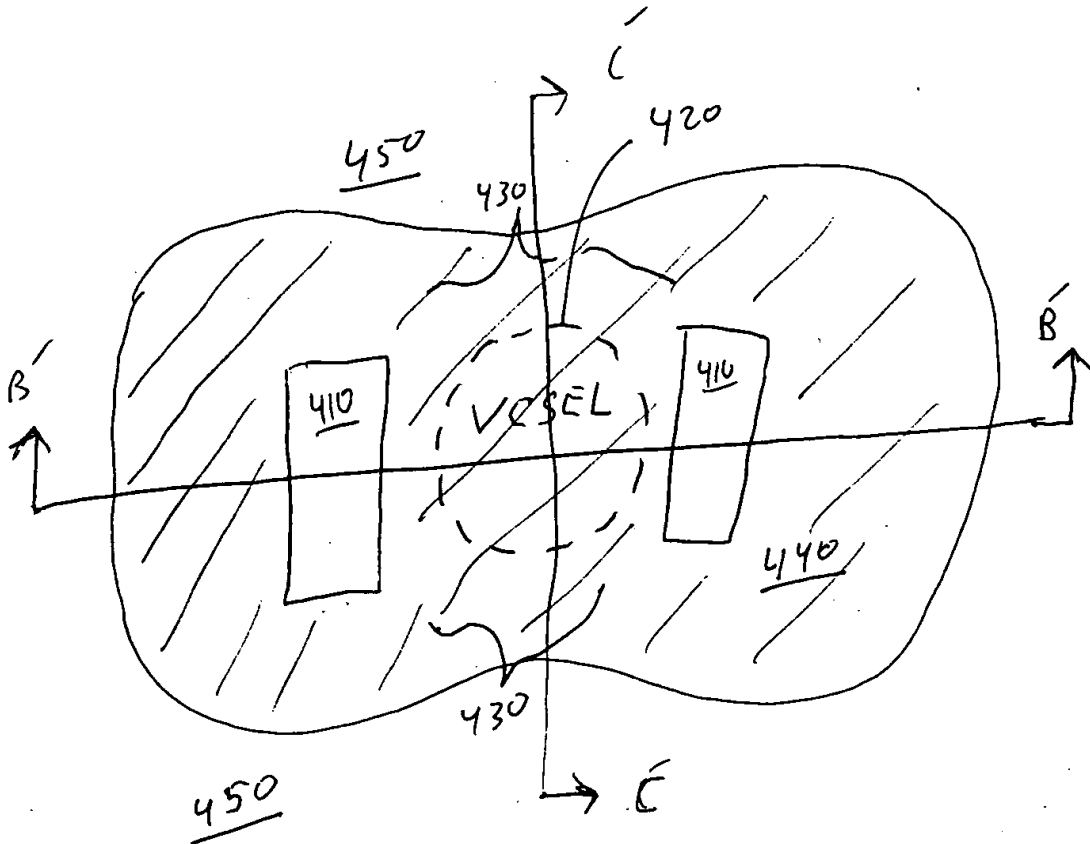


FIG. 4A

20100508042800T 10087408.030102

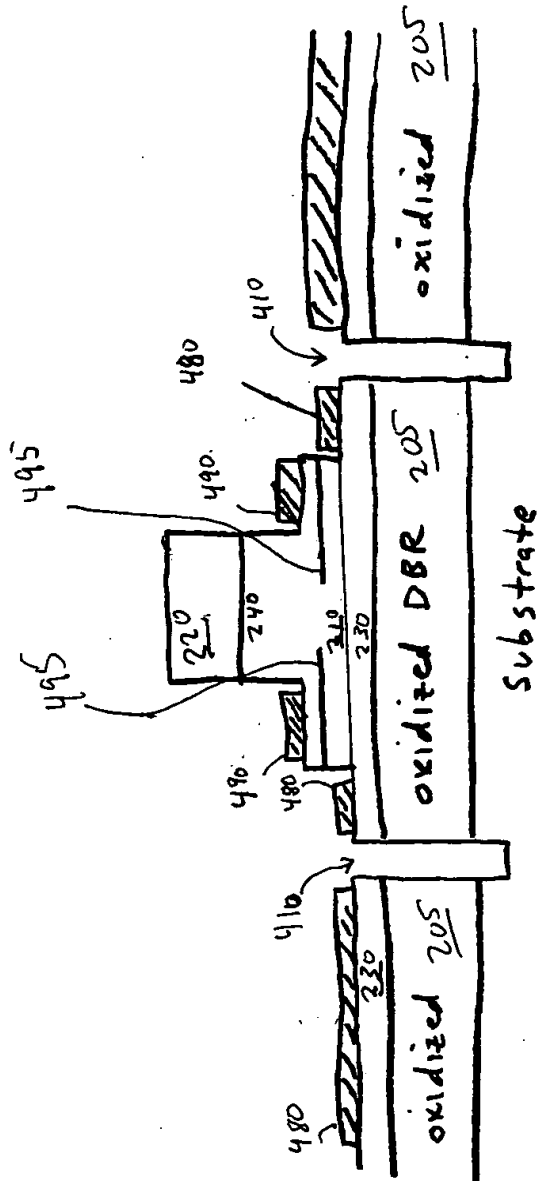


FIG. 4B

20160820-030102



11. H.G. HC

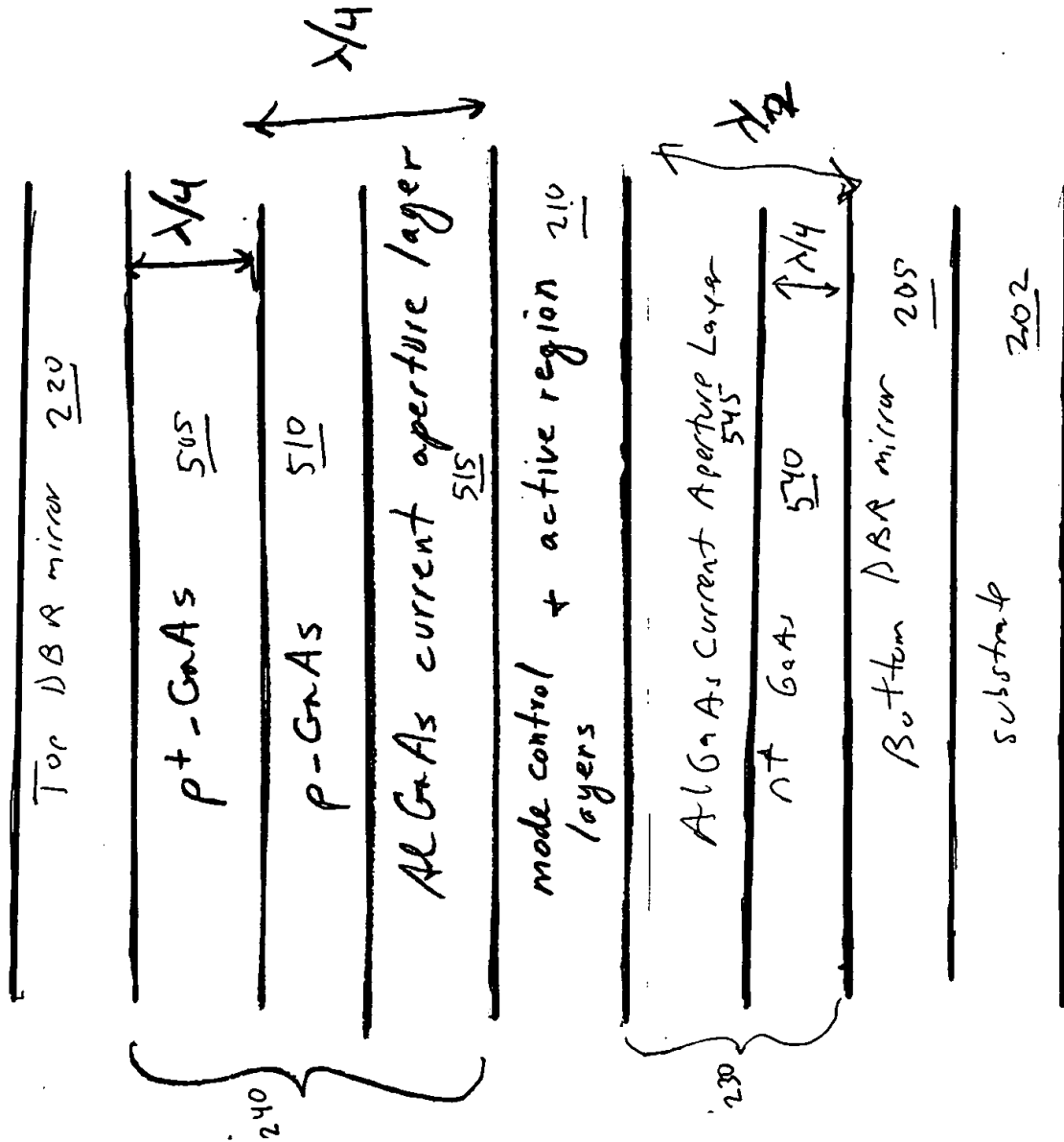
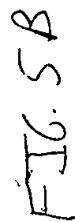


FIG. 5A



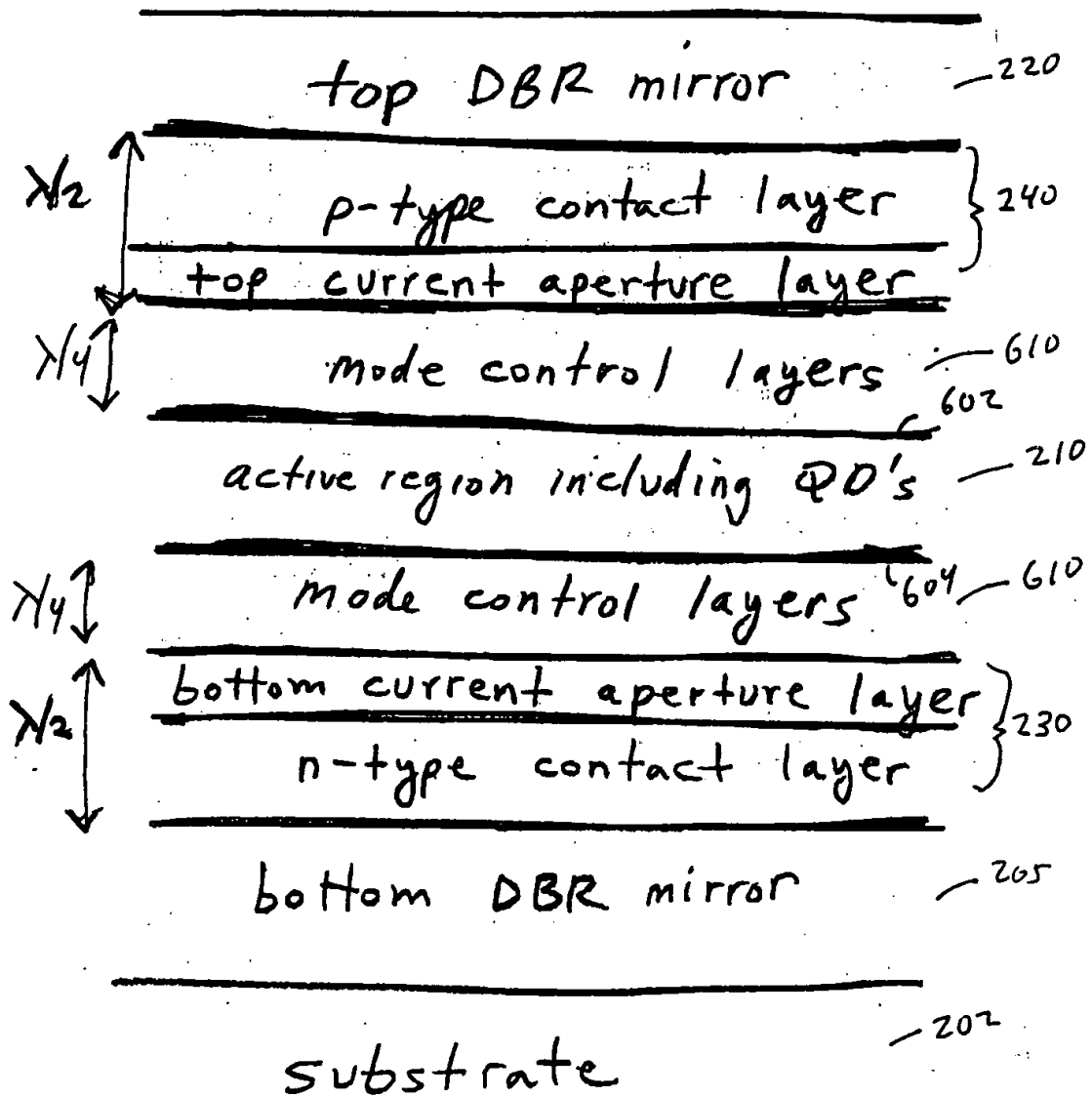


FIG. 6A

20100801 20100801

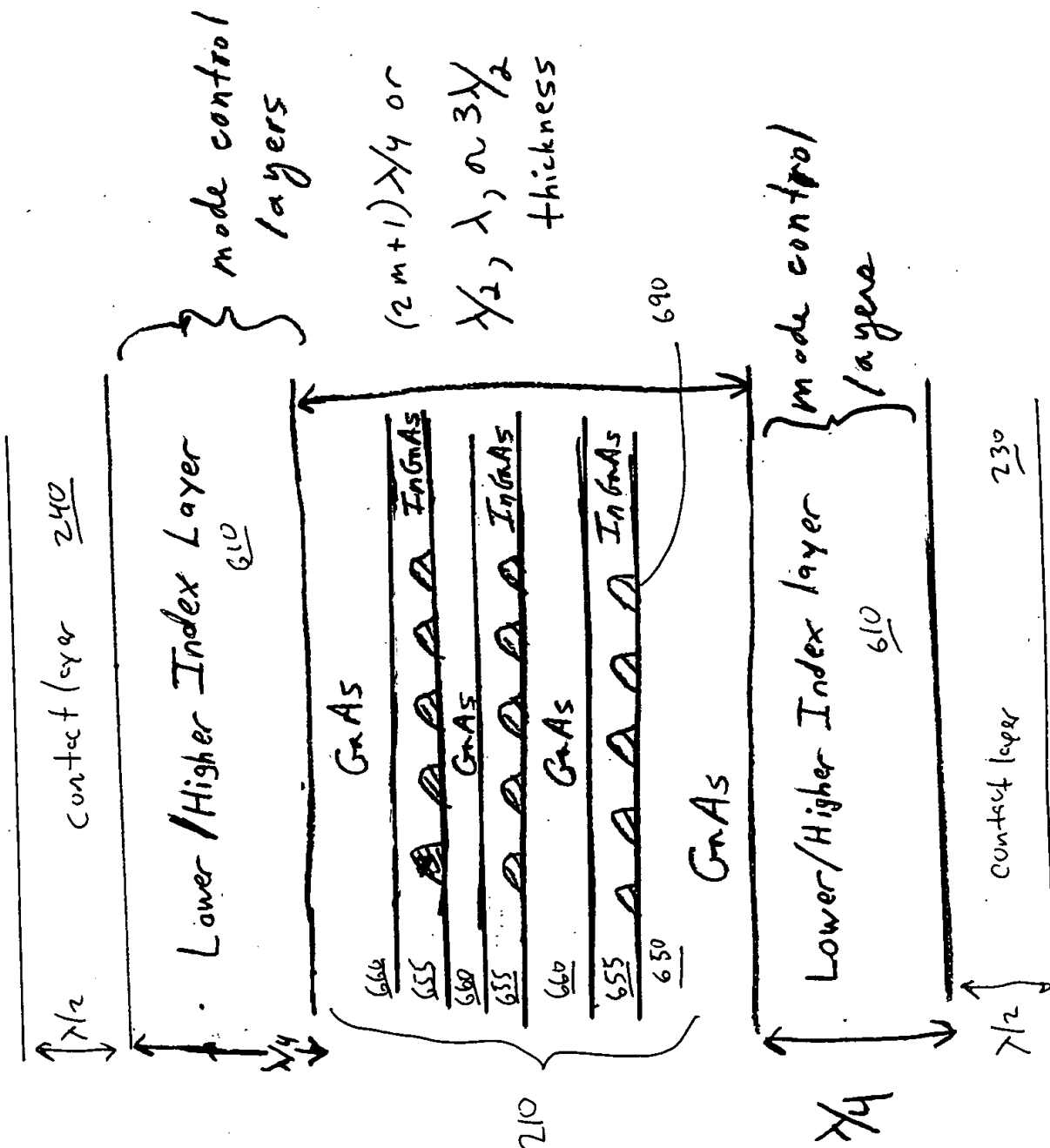


FIG. 6B

2070E0" B0H2800T

200
↓

220	GaAs	92nm, 5x	
	Al _{0.92} Ga _{0.08} As	10nm, 5x	
	AlAs	213nm, 5x	
	Al _{0.92} Ga _{0.08} As	10nm, 5x	
	GaAs, p ₃ ¹⁸	92nm	p-contact
240	Al _{0.92} Ga _{0.08} As, p ₁ ¹⁷	107nm	Mode Control
610	GaAs, p ₁ ¹⁷	71nm	p-contact
	Al _{0.98} Ga _{0.02} As, p ₁ ¹⁷	50nm	Current aperture
	Al _{0.92} Ga _{0.08} As	12nm	grade for current aperture
	GaAs	20nm	Active
	GaAs	10nm, 3x	600C Active
	GaAs	0.8nm, 3x	Active
	In _{0.15} Ga _{0.85} As	~8nm, 3x	Active
210	InAs	2.4ML, 3x	Active
	In _{0.15} Ga _{0.85} As	1nm, 3x	510C Active
	GaAs	159nm	Active
610	Al _{0.92} Ga _{0.08} As, n ₁ ¹⁸	107nm	Mode Control
230	GaAs, n ₂ ¹⁸	92nm	n-contact
	Al _{0.92} Ga _{0.08} As	10nm, 8x	
205	AlAs	213nm, 8x	
	Al _{0.92} Ga _{0.08} As	10nm, 8x	
	GaAs	92nm, 8x	
	Al _{0.92} Ga _{0.08} As	10nm	
	AlAs	213nm	
	Al _{0.92} Ga _{0.08} As	10nm	
	GaAs	200nm, 600C	
	GaAs N+ 2" 1-side	Tox=620C, 10min	

FIG. 7

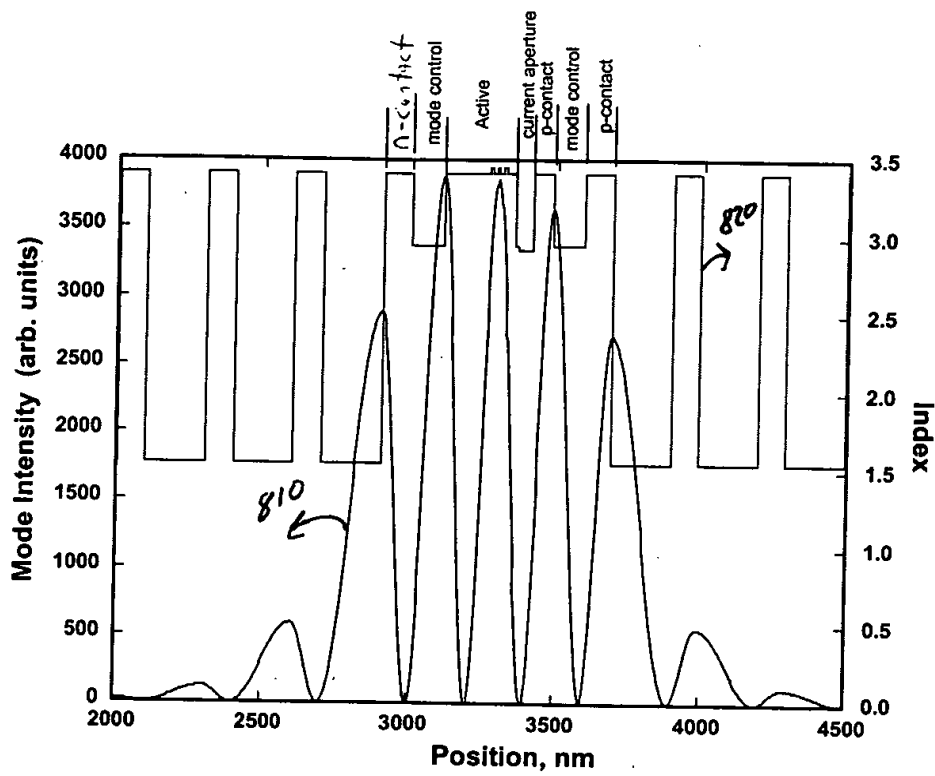


FIG. 8

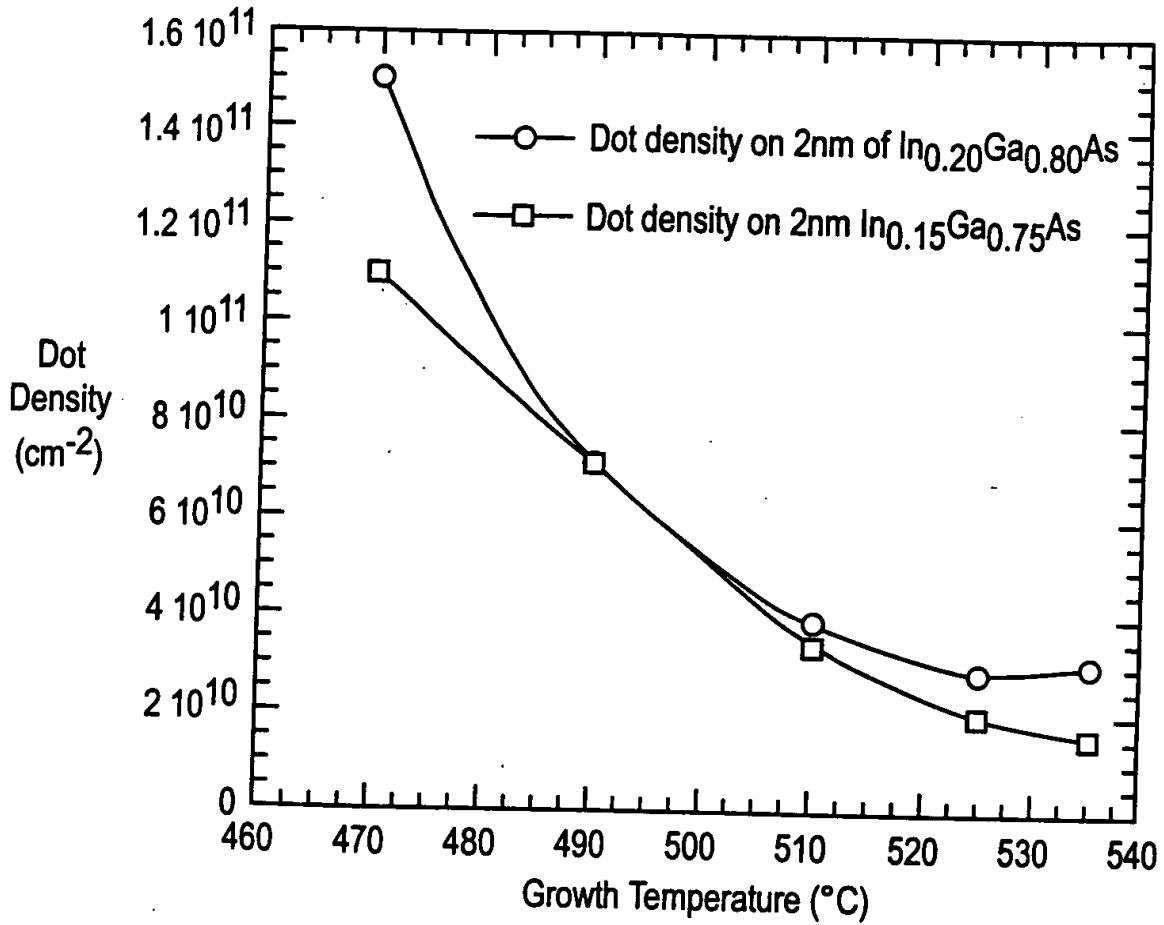


FIG. 9

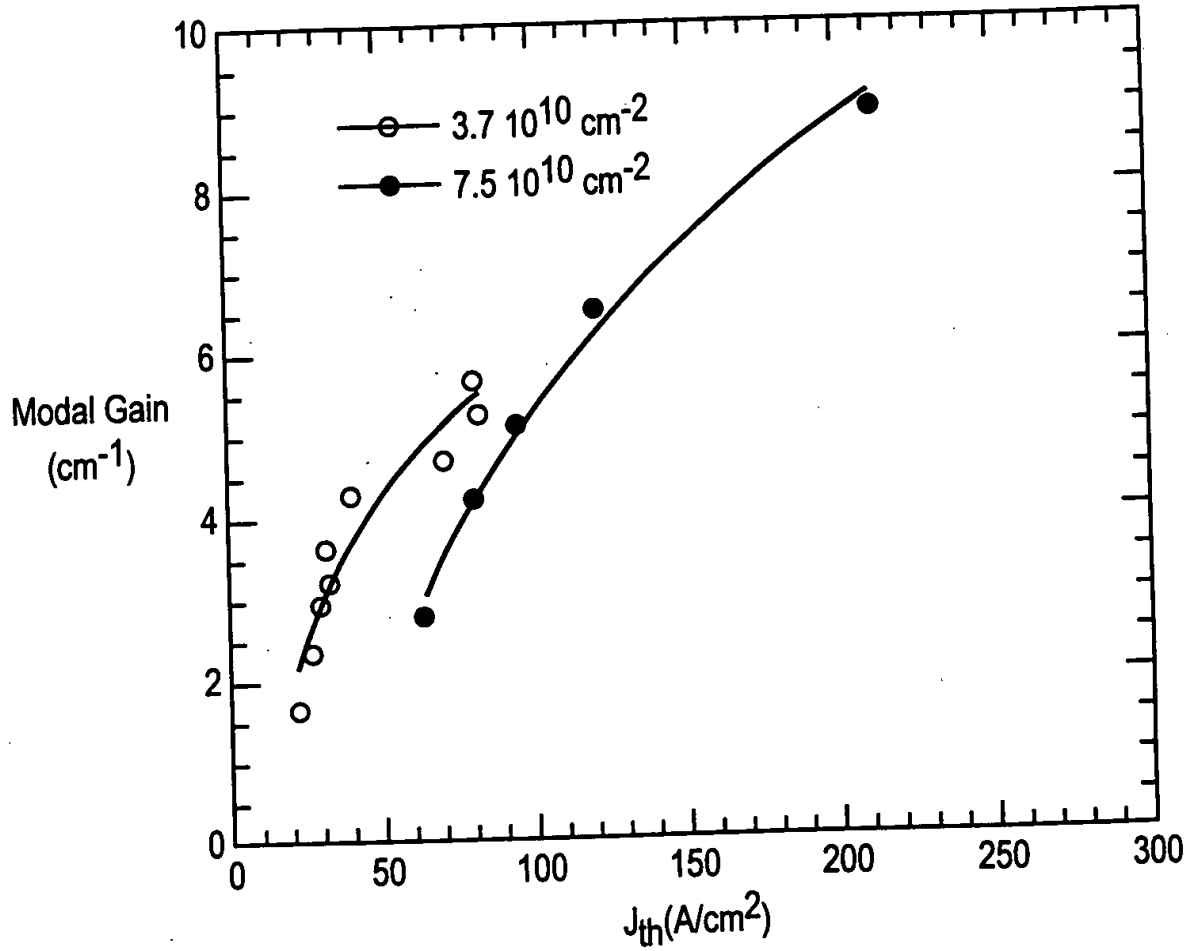


FIG. 10

10087408-030102

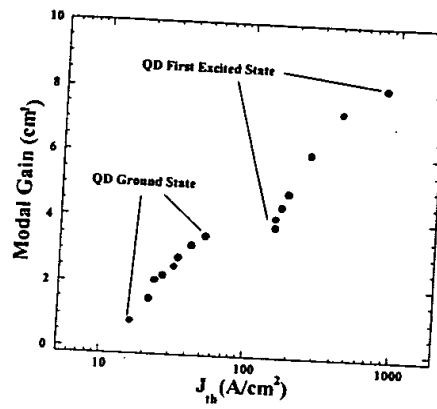


FIG. 11

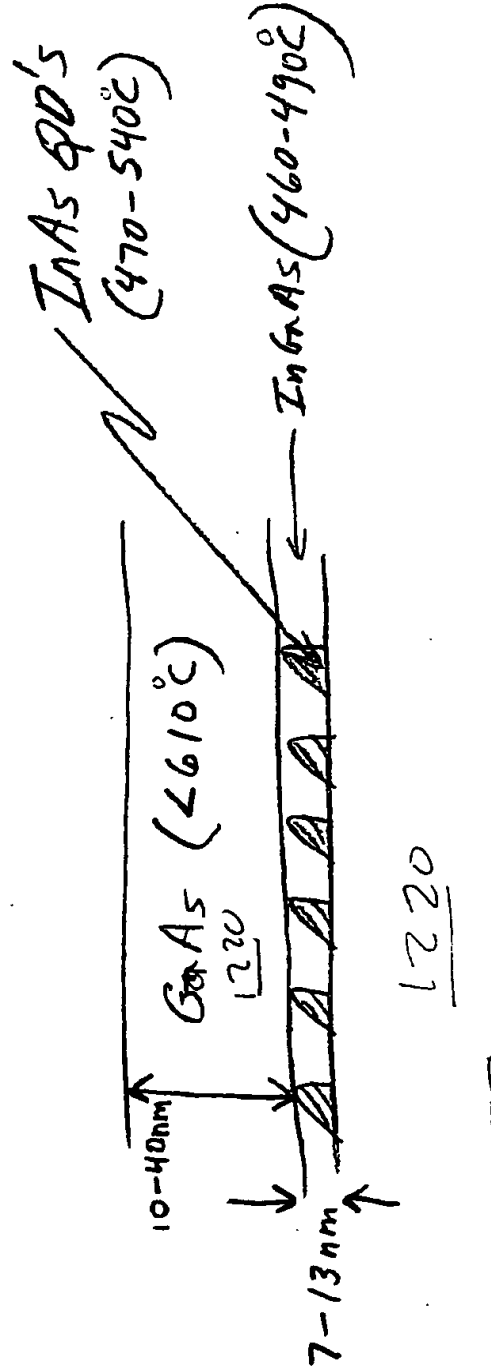


FIG. 12A

201009080428001

1215 ~ InGaAs 6-11 nm (460-490°C)
1210 ~ InAs 1-3 monolayers (470-540°C)
1205 ~ InGaAs 0.5-2 nm (~490°C)
1200 ~ GaAs -1220

FIG. 12B

10087408-030102

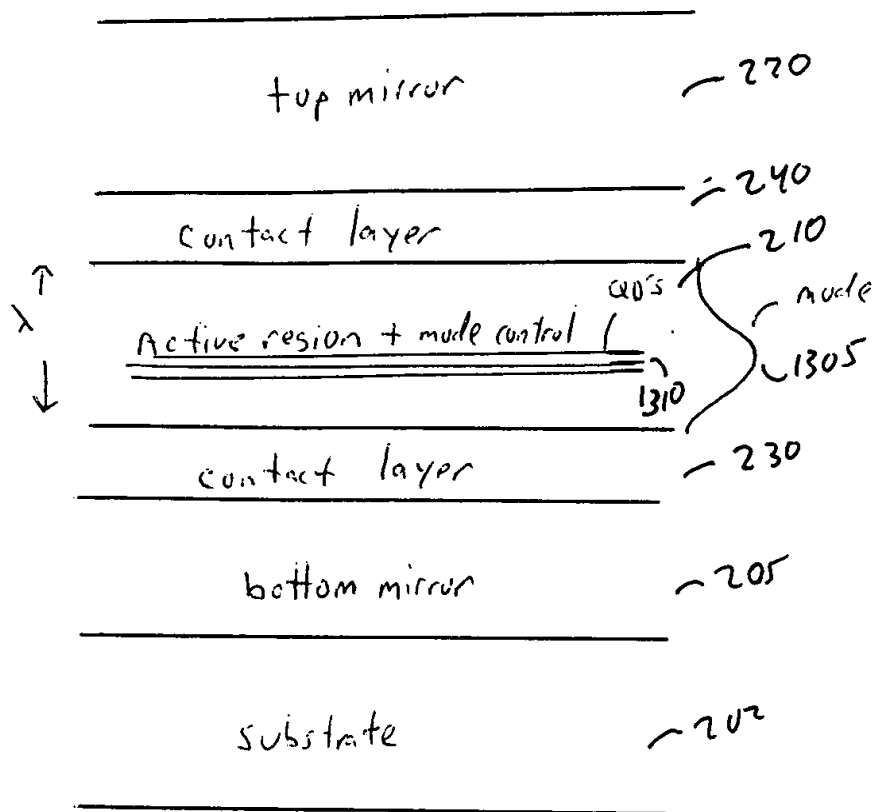


FIG. 13

10087408-030102

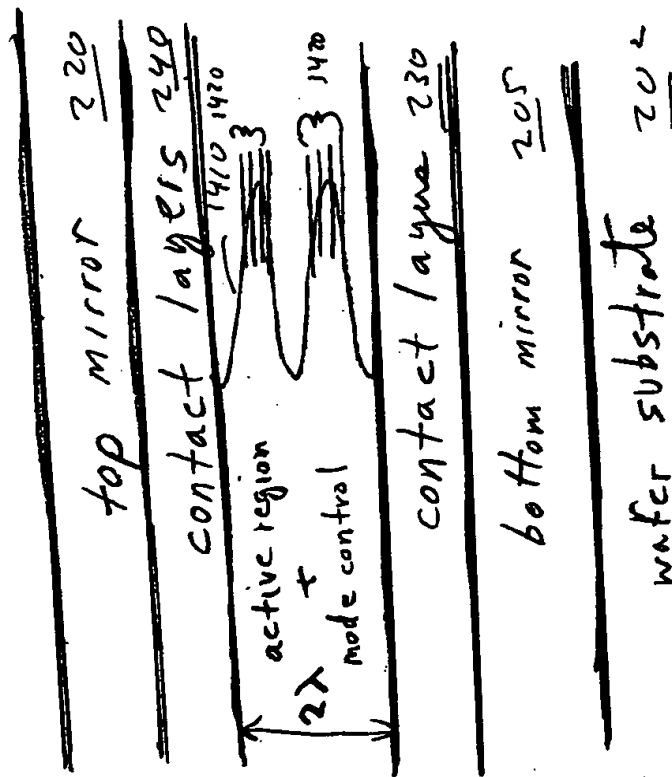


FIG. 14

2010E0180428001

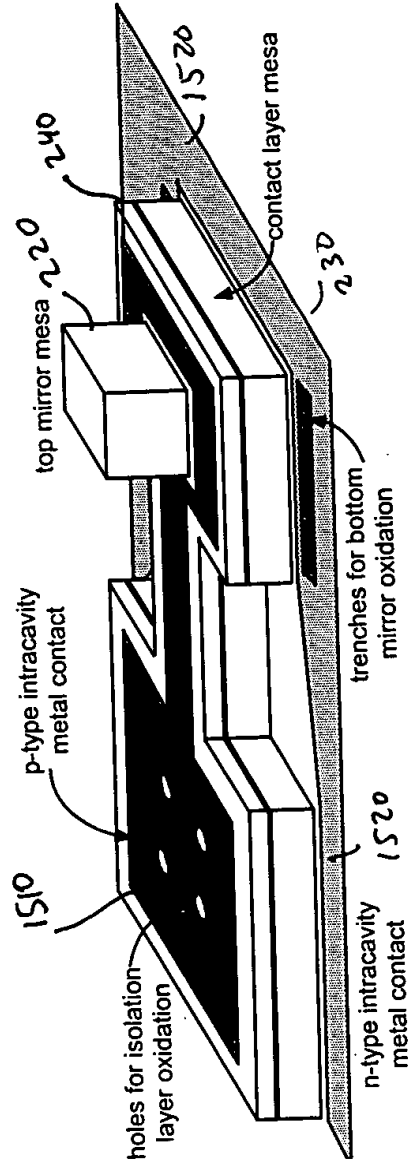


FIG. 15A

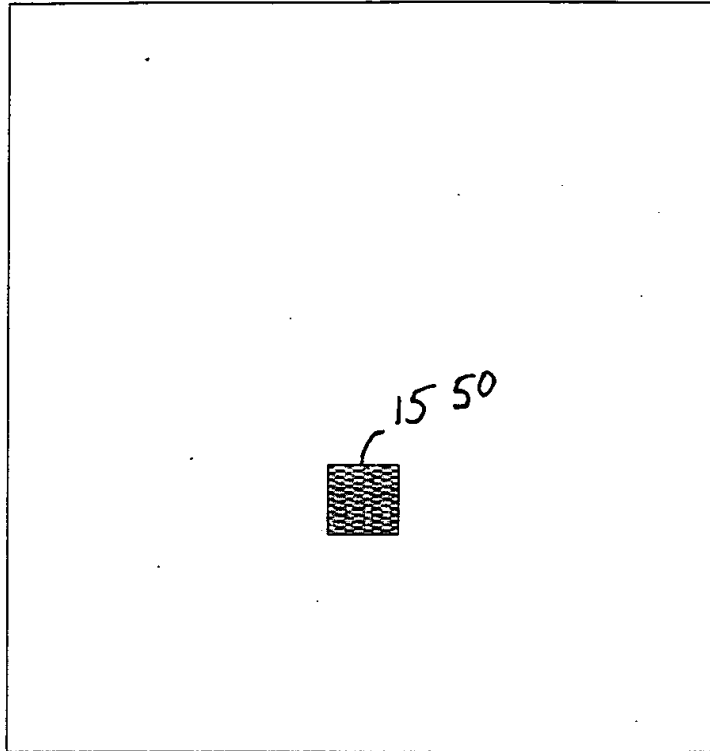


FIG. 15B

20100804-030102

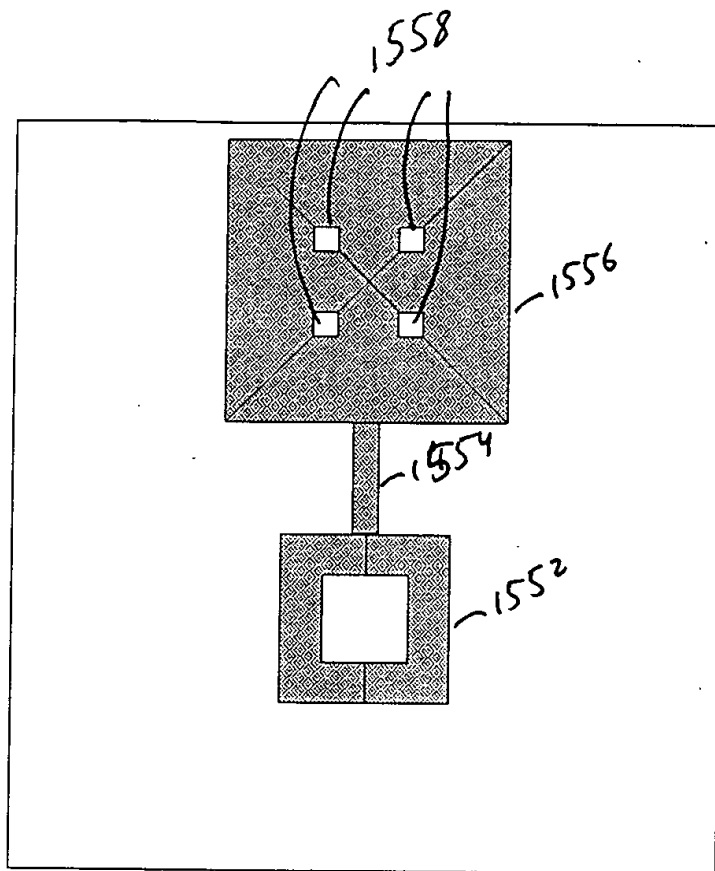


FIG. 15C

10087408.030102

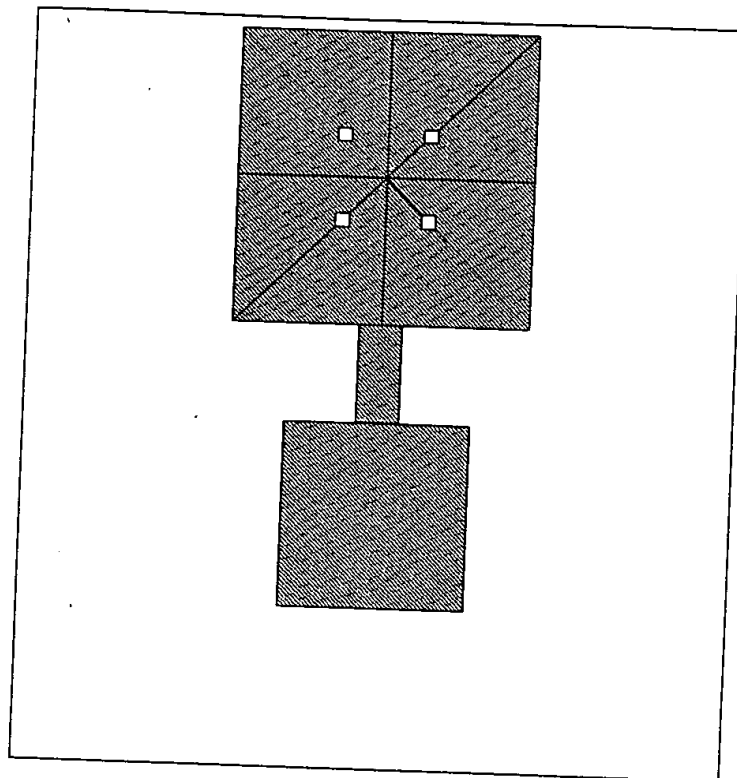


FIG. 15D

10087408-030102

SECRET

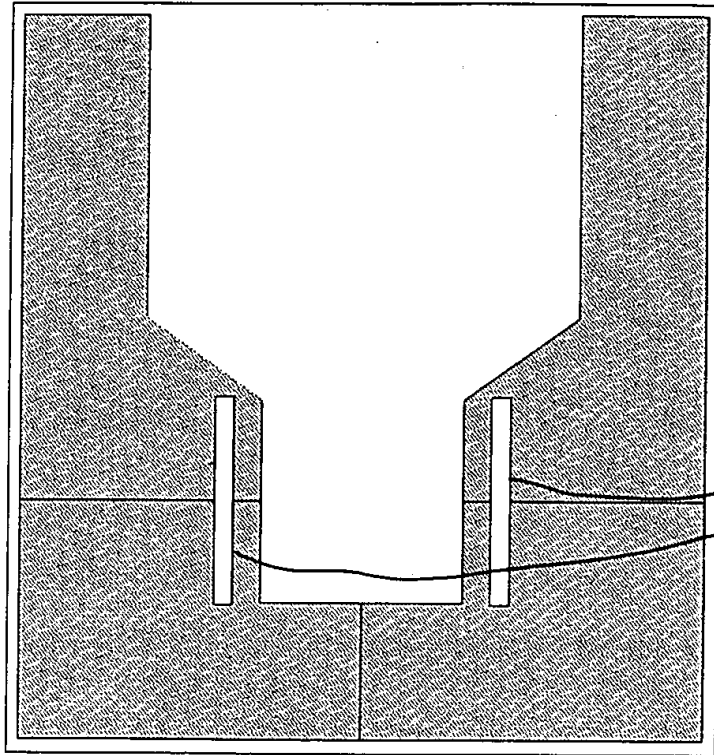


FIG. 15E

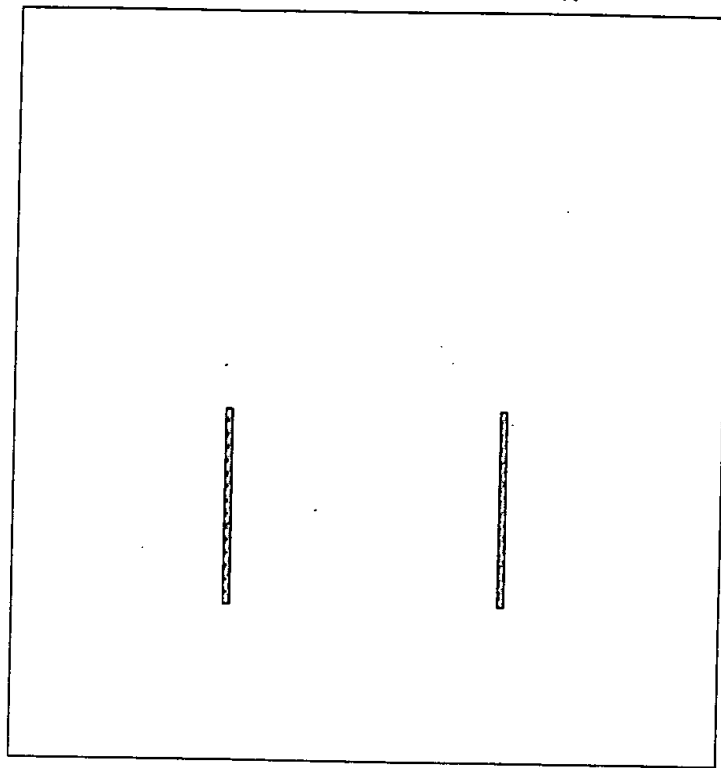


FIG. 15F

10087408-030102

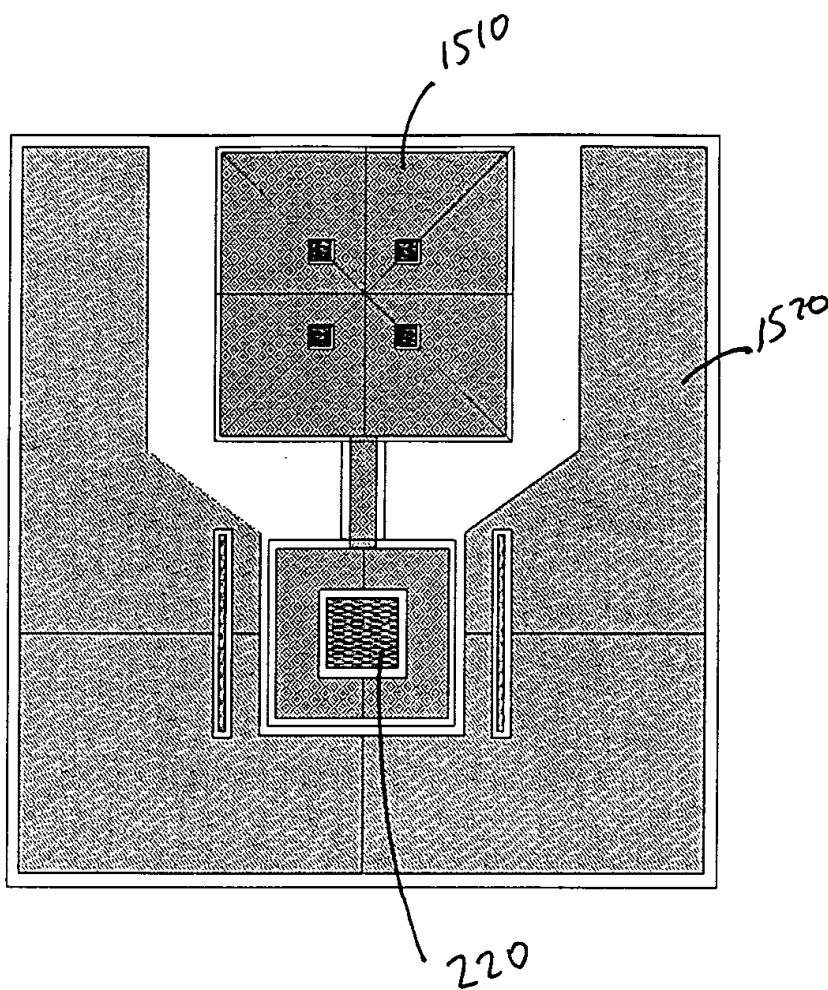


FIG. 15G

2010E0804800T
10087408-030102

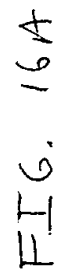


FIG. 16A

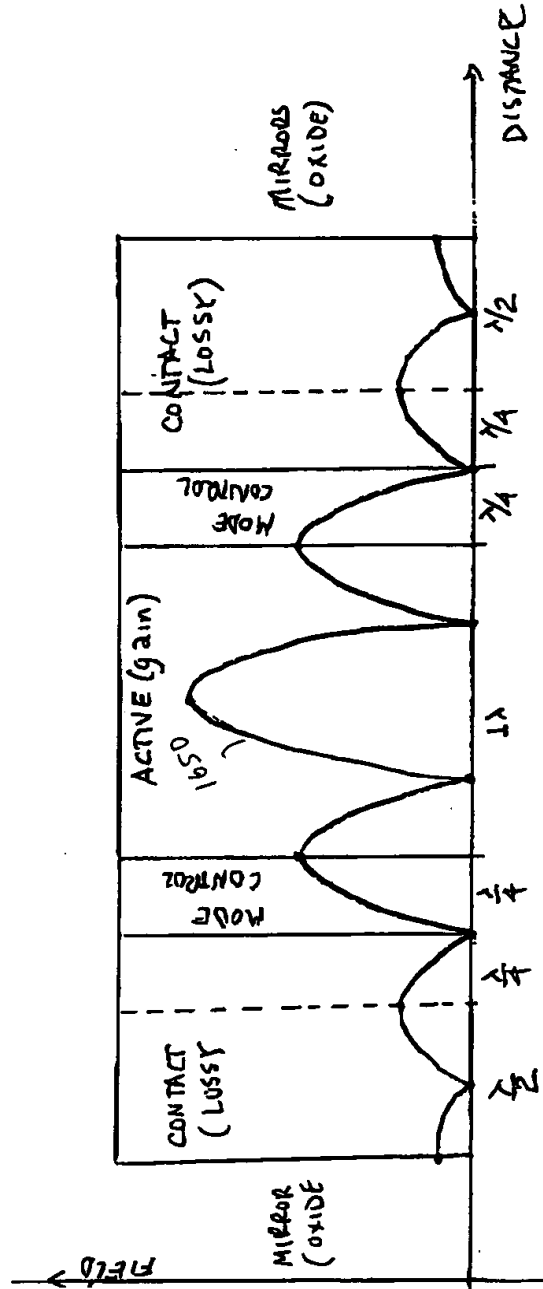


FIG. 16B

10087403-030102